

WHAT IS CLAIMED IS:

1 1. A liquid ejecting apparatus comprising:
2 a liquid ejecting head, having a plurality of nozzles for ejecting a liquid
3 drop formed at a lower face thereof;
4 a wiping member, wiping an opening portion of the nozzle;
5 a carriage, mounted with the liquid ejecting head, and moving in a
6 horizontal direction relative to the wiping member; and
7 an inclined plate, mounted on the carriage at a predetermined space
8 from the liquid ejecting head, and formed with an inclined face having a rising
9 inclination as being far from the liquid ejecting head,
10 wherein a projected portion is provided on at least one of the liquid
11 ejecting head and the inclined plate such that an opening portion at a lower side
12 of the space is smaller than an upper portion of the space.

1 2. The liquid ejecting apparatus as set forth in claim 1, wherein a lower
2 face of the inclined plate on a side of the liquid ejecting head and a lower face
3 of the liquid ejecting head on a side of the inclined plate are substantially flush
4 with each other.

1 3. The liquid ejecting apparatus as set forth in claim 1, wherein a
2 clearance of the opening portion of the space is smaller than a width of the
3 wiping member in the horizontal direction.

1 4. The liquid ejecting apparatus as set forth in claim 1, wherein the inclined

2 plate is formed with a discharge hole communicating the space with an external
3 portion to penetrate a base end portion of the projected portion and a lower face
4 thereof.

1 5. A liquid ejecting apparatus comprising:
2 a liquid ejecting head, having a plurality of nozzles for ejecting a liquid
3 drop formed at a lower face thereof;
4 a wiping member, wiping an opening portion of the nozzle;
5 a carriage, mounted with the liquid ejecting head, and moving in a
6 horizontal direction relative to the wiping member; and
7 an inclined plate, mounted on the carriage at a predetermined space
8 from the liquid ejecting head, and formed with an inclined face having a rising
9 inclination as being far from the liquid ejecting head,
10 wherein a projected portion for adhering or repelling the liquid invading
11 the space is provided on at least one of the liquid ejecting head and the inclined
12 plate.

1 6. The liquid ejecting apparatus as set forth in claim 5, wherein the
2 projected portion is provided on the inclined plate; and
3 wherein the projected portion is provided on the liquid ejecting head so
4 as to overlap a clearance between the projected portion of the inclined plate
5 and the liquid ejecting head as viewed in an extending direction of the space.

1 7. The liquid ejecting apparatus as set forth in claim 5, wherein the
2 projected portion is provided on the liquid ejecting head; and

wherein the projected portion is provided on the inclined plate so as to overlap a clearance between the projected portion of the liquid ejecting head and the inclined plate as viewed in an extending direction of the space.

8. A liquid ejecting apparatus comprising:
a liquid ejecting head, having a plurality of nozzles for ejecting a liquid drop formed at a lower face thereof;
a wiping member, wiping an opening portion of the nozzle;
a carriage, mounted with the liquid ejecting head, and moving in a horizontal direction relative to the wiping member; and
an inclined plate, mounted on the carriage at a predetermined space from the liquid ejecting head, and formed with an inclined face having a rising inclination as being far from the liquid ejecting head,
wherein an absorbing member is arranged at the space.

9. The liquid ejecting apparatus as set forth in claim 8, the absorbing member is comprised of a porous material; and
wherein the absorbing member is arranged to the space by contracting a lower portion thereof.

10. A liquid ejecting apparatus comprising:
a liquid ejecting head, having a plurality of nozzles for ejecting a liquid drop formed at a lower face thereof;
a wiping member, wiping an opening portion of the nozzle;
a carriage, mounted with the liquid ejecting head, and moving in a

6 horizontal direction relative to the wiping member; and
7 an inclined plate, mounted on the carriage at a predetermined space
8 from the liquid ejecting head, and formed with an inclined face having a rising
9 inclination as being far from the liquid ejecting head,
10 wherein a hermetically sealed material is arranged at the space.

1 11. A liquid ejecting apparatus comprising:
2 a liquid ejecting head, having a plurality of nozzles for ejecting a liquid
3 drop;
4 a wiping member, wiping an opening portion of the nozzle;
5 a carriage, mounted with the liquid ejecting head, and moving in a
6 horizontal direction relative to the wiping member; and
7 a controller, stops a movement of the wiping member relative to the
8 carriage for a predetermined time period in a state that the wiping member is
9 brought into press contact with the liquid ejecting head after wiping the liquid
10 ejecting head.

1 12. The liquid ejecting apparatus as set forth in claim 11, wherein an
2 inclined plate is mounted on the carriage, and is formed with an inclined face
3 having a rising inclination as being far from the liquid ejecting head; and
4 wherein the controller temporarily stops the movement of the wiping
5 member relative to the carriage in a state that the wiping member is brought into
6 press contact with the inclined plate after wiping the liquid ejecting head.

1 13. The liquid ejecting apparatus as set forth in claim 11 wherein the wiping

2 member is comprised of an elastic material;
3 wherein the wiping member has a wiping face for wiping the opening
4 portion of the nozzle, the wiping face being inclined relative to the horizontal
5 direction by a predetermined angle.

1 14. The liquid ejecting apparatus as set forth in claim 11, wherein the wiping
2 member is moved relative to the carriage in a second horizontal direction
3 substantially orthogonal to the horizontal direction after the movement of the
4 wiping member is stopped for the predetermined time period in a state that the
5 wiping member is brought into press contact with the liquid ejecting head.

1 15. The liquid ejecting apparatus as set forth in claim 11, wherein the wiping
2 member has a rectangular shape in a horizontal section; and
3 wherein a longitudinal direction of the rectangular shape of the wiping
4 member is substantially in orthogonal to the horizontal direction.

1 16. The liquid ejecting apparatus as set forth in claim 11, wherein the wiping
2 member is comprised of an elastic member;
3 wherein the wiping member is moved in a direction substantially
4 orthogonal to a direction in which the wiping member is bent after the
5 predetermined time period is passed in the state that the wiping member is
6 brought into press contact with the liquid ejecting head such that the wiping
7 member is released from the press contact state.

1 17. The liquid ejecting apparatus as set forth in claim 11, wherein a front

2 end of the wiping member has a tapered shape.

1 18. A method for cleaning, comprising the steps of:
2 providing a liquid ejecting head having a plurality of nozzles for ejecting
3 a liquid drop;
4 providing a carriage mounted with the liquid ejecting head;
5 providing a wiping member;
6 moving the carriage in a horizontal direction relative to the wiping
7 member;
8 wiping an opening portion of the nozzle by the wiping member; and
9 stopping a movement of the wiping member relative to the carriage for a
10 predetermined time period in a state that the wiping member is brought into
11 press contact with the liquid ejecting head after the wiping step.

1 19. The method as set forth in claim 18, further comprising the steps of:
2 providing a plate mounted on the carriage, and having an inclined face
3 in which a lower portion is arranged on a side of the liquid ejecting head thereof;
4 stopping a movement of the wiping member relative to the carriage in a
5 state that the wiping member is brought into press contact with the plate after
6 the wiping step.

1 20. The cleaning method as set forth in claim 18, further comprising the
2 step of moving the wiping member relative to the carriage in a direction
3 substantially orthogonal to the horizontal direction so that the wiping member is
4 released from the state of being brought into press contact with the liquid

5 ejecting head.